ZAKANDIN, Viktor Il'ich; BARSKIY, A.A., red.; PLESHANOVA, M.I.,
    red.izd-va; PARAKHINA,N.L., tekhn. red.

[Technical and economic analysis of the cost of sawmill
products] Tekhniko-ekonomicheskii analiz sebestoimosti
piloproduktsii. Moskva,Goslesbumizdat, 1961. 113 p.
                                        (MIRA 15:4)
    (Lumbering--Costs) (Sawmills)

CHIRKOV, Aleksandr Vasil'yevich; BARSKIY, A.A., red.; MEL'NIKOVA,
M.S., red. izd-va; BACHURINA, A.M., tekhn. red.

[Ways of reducing the production costs of furniture and
other articles made of wood]Puti snizheniia sebestoimosti
mebeli i drugikh izdelii iz drevesiny. Moskva, Goslesbum-
izdat, 1961. 115 p.   (MIRA 15:10)
                     (Woodworking industries—Costs)

BARSKIY, Aron El'yevich [Bars'kyi A.B.]; VOROTENITSKA, S. [Vorotenits'ka, S.], red.; GUSAROV, K., tekhn. red.

[Two-sided milling] Dvokromkove frezeruvannia. Kyiv, Derzhtekhvydav URSR, 1958. folder (7 p.).   (MIRA 11:10)
                              (Metal cutting)

BARSKIY, Aron El'yevich, inzh.; DYMSHITS, Mikhail Abramovich,
inzh.; NEVSKIY, B.N., inzh., retsenzent; SENCHUROV,P.P.,
inzh., red.izd-va; STARODUB, T.A., tekhn. red.

[Attachments for machine tools; adjusting and multiple-
purpose] Prisposobleniia k metallorezhushchim stankam;
naladochnye i universal'nye. Kiev, Gostekhizdat USSR,
1963. 223 p.   (MIRA 17:3)

ACC NR: AP7004239   SOURCE CODE: UR/0103/67/000/001/0017/0022

AUTHOR: Barskiy, A. G. (Moscow)

ORG: none

TITLE: Stability of 3-channel automatic control systems with antisymmetrical links

SOURCE: Avtomatika i telemekhanika, no. 1, 1967, 17-22

TOPIC TAGS: automatic control system, automatic control R and D, automatic control theory

ABSTRACT: The stability of a 3-channel system with direct cross-links (see figure below) is sought in equivalent series-connected 2-channel and single-channel systems. Transfer functions of each pair of channels of the 3-channel system are found. A 3-axis gyro-stabilized platform is an example of the 3-channel system. Orig. art. has: 5 figures and 25 formulas.

Card 1/2   UDC: 62-501.12

ACC NR: AP7004239
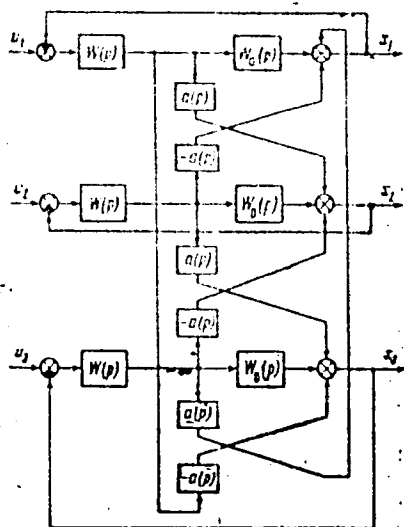
The 3-channel system is described by these equations:

$$[1 + W(p)W_0(p)]x_1 - W(p)a(p)(x_2 - x_3) =$$
$$= W(p)W_0(p)u_1 - W(p)a(p)(u_2 - u_3),$$
$$[1 + W(p)W_0(p)]x_2 + W(p)a(p)(x_1 - x_3) =$$
$$= W(p)W_0(p)u_2 + W(p)a(p)(u_1 - u_3),$$
$$[1 + W(p)W_0(p)]x_3 + W(p)a(p)(x_2 - x_1) =$$
$$= W(p)W_0(p)u_3 + W(p)a(p)(u_2 - u_1).$$

The characteristic determinant of the closed system is:

$$D_0 = \begin{vmatrix} 1 + W(p)W_0(p) & W(p)a(p) & W(p)a(p) \\ W(p)a(p) & 1 + W(p)W_0(p) & -W(p)a(p) \\ -W(p)a(p) & W(p)a(p) & 1 + W(p)W_0(p) \end{vmatrix}.$$

The characteristic equation of the closed system is:

$$[1 + W(p)W_0(p)]\{[1 + W(p)W_0(p)]^2 + 3W^2(p)a^2(p)\} = 0.$$

SUB CODE: 09, 13/   SUBM DATE: 31Jan66/   ORIG REF: 001/

Card 2/2

ACC NR: AP6032427   SOURCE CODE: UR/0103/66/000/009/0054/0062

AUTHOR: Barskiy, A. G. (Moscow)

ORG: none

TITLE: Cycling in two-channel automatic systems having a nonlinear element in
the single-channel portion of loop

SOURCE: Avtomatika i telemekhanika, no. 9, 1966, 54-62

TOPIC TAGS: automatic control system, cycling, automatic control R and D

ABSTRACT: A general case of the two-channel automatic system is considered in
which the infralow-frequency portion of the loop consists of two dissimilar
channels having nonsymmetrical cross links. The method of harmonic balance is
extended on such systems. A characteristic equation of a closed harmonically
linearized system of the above kind determines these two harmonic-balance

Card 1/2

ACC NR: AP6032427

equations: $\dfrac{1}{\bar{q}_1} = \Phi_1(j\omega)$, $\dfrac{1}{\bar{q}_2} = \Phi_2(j\omega)$, where $\bar{q}_1$ and $\bar{q}_2$ - complex harmonic gains of the nonlinear element; $\Phi_1(j\omega)$, $\Phi_2(j\omega)$ - translated frequency characteristics of the linear element. A consistent solution of the above equations yields cycling-regime parameters. The form of the frequency characteristics indicates the possible nature of cycling. Elliptic cycling is possible in automatic systems with unambiguous center-symmetrical (or odd-symmetrical) nonlinearity in the single-channel portion of the loop. The cross links in the two-channel portion may substantially affect the possibility of occurring and the form of cycling. Orig. art. has: 5 figures and 37 formulas.

SUB CODE: 13, 09 / SUBM DATE: 12Feb66 / ORIG REF: 002

Card 2/2

L 46652-66   EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1)   BC

ACC NR: AP6021387   SOURCE CODE: UR/0103/66/000/006/0027/0036

AUTHOR: Barskiy, A. G. (Moscow)   48

ORG: none   B

TITLE: Two-channel automatic control systems with cross links

SOURCE: Avtomatika i telemekhanika, no. 6, 1966, 27-36

TOPIC TAGS: linear automatic control system, control system stability

ABSTRACT: In this article the author considers linear two-channel systems of a general con-
figuration, which consist of two nonidentical channels and which have asymmetrical cross
couplings. Through the use of complex coordinates and the introduction of a coupling factor Q
and transfer C-functions, the equivalent transfer function of an open two-channel system is
determined. This function can be employed in stability analysis work. The paper shows that
stability may be both positively and negatively affected by the cross links in such two-channel
systems. The method presented is applicable for the stability analysis of generalized linear
two-channel systems. Examples are given of the use of this method. Orig. art. has: 10
figures and 36 formulas.

SUB CODE: 09,   13/ SUBM DATE: 11Jun65/ ORIG REF: 001/ OTH REF: 000
Card 1/1   UDC: 62-501.1

BARSKIY, A.I., assistent

Characteristics of prosthesis application in cases of complete absence of teeth on the upper jaw. Stomatologiia 40 no.3:81-85 My-Je '61.
(MIRA 14:12)

1. Iz kafedry ortopedicheskoy stomatologii (zav. - dotsent Z.Ya. Shur) Permskogo meditsinskogo instituta (dir. - prof. I.I.Kositsyn).
(DENTAL PROSTHESIS)

BARSKIY, A. I.

Electric power economics at the Aktiubinsk plant. Prom.energ.
17 no.10:11-12 0 '62.
(MIRA 15:9)
(Aktiubinsk--Chemical plants) (Electric power distribution)

S/115/60/000/011/001/013
B019/B058

AUTHORS: Shereshevskiy, L. M. and Barskiy, A. M.

TITLE: Using Plywood Panels for Manufacturing Large Measuring
             Instruments

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 11, pp. 10 - 12

TEXT: A number of measuring instruments, suitable for precise measure-
ments in the range of from 500 to 3000 mm were produced at the
Eksperimental'nyy nauchno-issledovatel'skiy institut (ENIKMaSh) (Experi-
mental Scientific Research Institute) for a factory in Voronezh. Low
weight and low thermal diffusivity were the most important requirements
for the instruments. Plywood panels seemed to be suitable. It was planned
to manufacture micrometers for 500 to 1200 mm, angles with 2000 mm,
indicator checking devices of from 1000 to 4000 mm, instruments for
measuring wheel bases up to 3000 mm, etc. A micrometer for the measuring
range of from 800 to 900 mm with a weight of 3.9 kg was thoroughly tested
to check the production quality. The nominal error of the instrument,
calculated on the basis of GOST data, was ±24 microns, the experimentally

Card 1/2

Using Plywood Panels for Manufacturing Large   S/115/60/000/011/001/013
Measuring Instruments   B019/B058

determined error ±7.5 microns. Further investigations showed that the
instruments described here are suitable for measuring parts of quality
class two, a strict observance of temperature conditions not being
required. Special provision must be made for measurements on parts of
quality class one, excluding a deformation of the micrometer yoke A
checkup proved the suitability of the designs described here. There are
2 figures, 2 tables, and 1 Soviet reference.

Card 2/2

BARSKIY, A.M.; SHERESHEVSKIY, L.M.

Industrial means for measuring large dimensions.   Izm.tekh.
no.9:7-8 S '61.   (MIRA 14:8)
                        (Gauges)

BARSKIY, A.V., dotsent

Some clinical data on the treatment of the pathology of healing
in fractures. Khirurgiia no.9:13-18 '61.   (MIRA 15:5)

1. Iz kliniki propedevtichekoy khirurgii (zav. - prof. S.P.
Shilovtsev) Kuybyshovskogo meditsinskogo instituta.
                          (FRACTURES)

BARSKIY, A. V., dotsent; GOLUB, L. B., assistent

Amputation of the lower extremity and half of the pelvis.
Khirurgiia 38 no.5:118-120 My '62.   (MIRA 15:6)

1. Iz kafedry obshchey khirurgii (zav. - prof. S. P. Shilovtsev)
Kuybyshevskogo meditsinskogo instituta.

(AMPUTATIONS OF LEG)

BARSKIY, A.V., dotsent

Accelerated osteogenesis in incorrectly united and not united
fracturs. Kaz.med.zhur. no.2:52-55   Mr-Ap'63   (MIRA 16:11)

1. Kafedra obshchey khirurgii (zav.-prof. S.P.Shilovtsev)
Kuybyshevskogo meditsinskogo instituta.

*

BARSKIY, A.V., dotsent

In memory of Sergei Pavlovich Shilovtsev. Trudy Kuib. med.
inst. 24:7-10 '63   (MIRA 17:4)

Prolonged autobiostimulation in treatment of pathological
sequelae of fractures. Ibid.:170-181

1. Iz kafedry obshchey khirurgii Kuybyshevskogo meditsinskogo
instituta. Zav. kafedroy — zasluzhennyy deyatel' nauki RSFSR
prof. S.P.Shilovtsev.

BARSKIY, A.V., dotsent; TACHEFT, I.A.

Surgical treatment of pheochromocytoma. Khir rgiia 40 no.7:137
J1 '64.   (MIRA 18:2)

1. Kafedra obshchey khirurgii Kuybyshevskogo meditsinskogo instituta.

33253
S/632/60/000/019/001/009
D053/D113

_IO 1500_

AUTHOR: Barskiy, B.A.

TITLE: Devices for investigating the aerodynamics of unsteady motions

SOURCE: Moscow. Tsentral'nyy aero-gidrodinamicheskiy institut
         Promyshlennaya aerodinamika, no. 19, 1960. Izmereniye vozdushnykn
         potokov, 3-8.

TEXT The author describes an inductance pickup and an integrator for ex-
perimentally determining and recording the force and momentum rotary deri
vative coefficients acting upon a body placed in an unsteady airflow. Tne
pickup (Fig. 1) consists of a diaphragm, a body forming a magnetic circuit,
and two coils. When assembled, it is 15 mm in diameter and 5 mm long.
The pickups are assembled with germanium diodes acting as demodulators
into a bridge circuit (Fig. 3) which is fed with a 1,500 cps current from
a tube generator. The obtained sensitivity is sufficiently high and the
maximum pickup error is of the order of 5 to 7%. When operating together
with galvanometers of the type 4 OT-24-51 (OT 24 51) "Geofizika" oscillo-
graph, the pickups caused a 2.5 mm deviation on the oscillogram for a

Card 1/4

33253
S/632/60/000/019/001/009
D053/D113

Devices for investigating...

pressure change of 1 mm H_2O. The transient response time was about 0.02 sec. Thus it is assumed that the pickup operates without distortions with these galvanometers at frequencies of the order of 20 to 30 cps. Experimental tests were conducted using 30 pickups on an airfoil 800x800 mm 6% relative thickness, to determine the pressure distribution on the airfoil at undamped vibrations with a 6° amplitude and an initial 15° angle of attack. The obtained total flow pattern and the rotary derivative coefficients of the force Y and the moment M for this airfoil were in a close agreement with those obtained by the dynamic method. The data obtained with the use of these pickups on the instantaneous pressure distribution can be utilized for computing all rotary derivative coefficients, both simple and complex ones. In cases when a total flow pattern is not required, the magnitudes of aerodynamic forces, or moments, acting upon the model can be directly obtained using an electric integrator (Fig. 7). The integrator output is amplified in an a·c amplifier and then fed to the oscillograph galvanometer. The amplifier has 2 amplifying stages on

Card 2/8

Devices for investigating...

S/632/60/000/019/001/009
D053/D113

a double 6H9c (6N9s) triode, an output stage on a 6H8c (6N8s) tube, and a phase-sensitive rectifier on ДГЦ-27 (DGTs-27) germanium diodes at its output. There are 7 figures.

Card 3/4

IO 1500

26.4106

S/632/60/000/019/007/009
D053/D113

33007

AUTHOR: Barskiy, B.A.

TITLE: Automatic contactless weighing elements

SOURCE: Moscow. Tsentral'nyy aero-gidrodinamicheskiy institut.
          Promyshlennaya aerodinamika, no. 19, 1960. Izmereniye
          vozdushnykh potokov, 68-73.

TEXT: The operational principle and design of automatic contactless
weighing elements are given. Automatic weighing elements have found
wide application in the measurement of aerodynamic forces and momentum,
and of such aerodynamic quantities which can be transformed into force,
e.g. for measuring pressure, flow velocity, etc. The automatic weighing
element is a two-arm lever (balance beam) to one end of which the meas-
ured force is applied and a rider sliding on the other arm is used for
balancing this force. The rider is moved by a servomotor controlled
by the deflection angle of the balance beam through a contact system
located at one of the beam ends. The accuracy of such a weighing
element is about one part in 6,000. In order to improve the perfor-
mance of the weighing device , a contactless balance-control

Card 1/8

Automatic contactless weighing elements

S/032/60/000/019/007/009
D053/D113

system was designed. The new system consists of a transformer-type
displacement transducer, an amplifier, and a two-phase induction
servomotor. A schematic of the control transducer is given in Fig. 1,
and the electric circuit of the weighing element is given in Fig. 2.
Tests of this automatic contactless weighing element showed that it
has twice as fast response as the contact-type weighing element.
Accuracy and sensitivity of this element was normal for devices of
this type. The root-mean-square error was one part in 6,000 for the
entire measuring range. These contactless weighing elements, in contrast
to contact-type elements, operate satisfactorily in devices measuring
forces and vibrations with high variable components. Experience gained
in the operation of the contactless weighing elements showed their
reliability and easy maintenance. The low voltage of the servomotor
(36V) increases the safety of servicing personnel. There are 6 figures.

Card 2/2

L 63244-65

ACCESSION NR: AT5013036   UR/0000/64/002/000/0067/0070

AUTHOR: Barskiy, B. A. (Moscow); Volosevich, V. A. (Moscow)

TITLE: Automatic harmonic analysis for measuring low-frequency periodic loads with high noise level

SOURCE: Vsesoyuznaya konferentsiya po avtomaticheskomu kontrolyu i metodam elektricheskikh izmereniy. 4th, Novosibirsk, 1962. Avtomaticheskiy kontrol' i metody elektricheskikh izmereniy; trudy konferentsiy, t. 2: Teoriya izmeritel'nykh informatsionnykh sistem. Sistemy avtomaticheskogo kontrolya. Elektricheskiye izmereniya neelektricheskikh velichin (Automatic control and electrical measuring techniques; transactions of the conference, v. 2: Theory of information measurement systems. Automatic control systems. Electrical measurements of nonelectrical quantities). Novosibirsk, Redizdat Sib. otd. AN SSSR, 1964, 67-70

TOPIC TAGS: harmonic analysis, aerodynamic test

ABSTRACT: As the oscillographic method has proven inadequate for measuring periodic loads under high-noise conditions (e.g., aerodynamic testing of an object

Card 1/2

L 63244-65

ACCESSION NR: AT5013036

vibrating in a flow), a harmonic analysis method is suggested. The harmonic analyzer measures the process parameters at the fundamental frequency and its higher harmonics characteristic for a particular experiment. The analyzer multiplies the measured signal by cos ipt and sin ipt and isolates the constant components which are the Fourier-series coefficients. A block diagram of the analyzer is shown, and its operation is briefly explained. The analyzer can operate at frequencies from 0.2 cps. Orig. art. has: 4 figures and 1 formula.

ASSOCIATION: none

SUBMITTED: 17Nov64   ENCL: 00   SUB CODE: AS, EC

NO REF SOV: 000   OTHER: 000

Card 2/2

BARSKIY, B.I., gornyy inzh.

Shaft sinking without headframe and with simultaneous
lining. Gor.zhur. no.7:41-44 Jl '60.   (MIRA 13:7)

1. Proyektnaya kontora kontora kombinata Stalinshakhtostroy,
Stalino.
                    (Shaft sinking)

BARSKIY, B.I., kand. med. nauk (...)

Prolonged course of ... 26 ... 1464-54
My '63   (...)

BARSKIY, B. I.
2830

Nekotor ye Voprosy Kliniki Tak Nazyvayemoy
Ostroy Toks heskoy Distrofii Pecheni.
Sbornik Nauch. Rabot Lecheb. Uchrezhden y
Mosk. Voen. Okr. Gor'k y, 1948, S. 227-35

SO: LETOPIS NO. 30, 1948

BARSKIY, P. I.
25814

Opyt Izucheniya Otganizatsii I Effektivnosti Lechebnogo
Pit:niya V Period Velikoy Otechestvennoy Voyny. Sbornik
Nauch. Rabot Lecheb. Uchrezhdeniy Mosk. Voen. Okr. Gor'kiy,
1948, s. 253-65.

SO: LETOPI: No. 30, 1948

BA SH Y, b. .
25831

Sluchay Ostroy Toksicheskoy Distrof
Pecheni, Zakonchivsh yya Vyzdorovleniyem.
Sbornik Nauch. Rabot Lecheb. uchrezhdeniy
nosk. Voen. Okr. Gor'kiy, 1948, s. 248-52.

SO: LETOPIS NO. 30, 1948

BARSKIY, B. I.

25914   Barskiy, B. I.   Materialy Po Vitaminoterapii Boevoy Travmy
Perifericheskoy Nervnoy Sistemy. Sbornik Nauch. Rabot Lecheb.
Uchrezhdeniy Mosk. Voyen. OKR. Gor'kiy, 1948, S. 290-94

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

33317   BARSKIY, B. I.

Voprosy kliniki "ostroy zheltoy atrofii" pecheni. Sov meditsina, 1949, No 12, s. 16-18

BARSKIY, Lt Col B. I.

58/49765

USSR/Medicine - Acute Parenchymatous Mar/Apr 49
Hepatitis
Medicine - Penicillin Therapy

"Clinical Aspect and Penicillin Treatment of
Malignant and Acute Parenchymatous Hepatitis,"
Lt Col B. I. Barskiy, Med Corps, Cand Med Sci,
10 pp

"Terap Arkhiv" Vol XXI, No 2

Cites eight case histories of patients with sub-
ject disease. Penicillin therapy is effective
only in some cases of acute toxic trophopathic
hepatitis. Mortality rate dropped from 2.1% in
1946 to .7% in 1947 due to extensive use of

USSR/Medicine - Acute Parenchymatous Mar/Apr 49
Hepatitis (Contd)

penicillin therapy. Beneficial effect of
penicillin is due to its bacteriostatic action
against secondary infections, and its ability
to increase the resistance of tissues and organs
involved.

58/49765

BARSKIY, B. I.

Pathogenesis, clinical aspect and treatment of acute forms
of Botkin's disease (epidemic hepatitis). Klin. med., Moskva
29 no.7:60-65 July 1951.   (CLML 20:11)

1. Lt. Col., Medical Corps.

BARSKIY, B.I., kandidat meditsinskikh nauk; BONDARCHUK, M.S., (Moskva)

Habitual vomiting in younger persons. Sov.med. 19 no.6: 38-41 Je
'55.   (MLRA 8:9)
        (VOMITING, in infant and child,
            habitual vomiting)

17(2)   SOV/1??-58-11-6/50

AUTHORS: Barskiy, B.I., Colonel of the Medical Corps, Candi-
                date of Medical Sciences; Blyumberg, N.A., Candidate
                of Medical Sciences; and Gokhfel'd, E.T.

TITLE: Certain Features of the Clinical Course of Acute He-
                patites

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 11, pp 22 -
                25 (USSR)

ABSTRACT: The authbr bases his article on the analysis of
                200 case reports of patients suffering from acute
                hepatitis (Botkin's disease) and refers to data of
                Pashutin, M.D. Tushinskiy, M.Ye. Vol'skiy, M.A. Ya-
                sinovskiy, A.S. Berlyand, A.A. Gol'denshteyn, G.I.
                Altukhova, G.I. Burchinskiy, M.I. Teodori. M.I. Ya-
                kubovich, M.K. Tarlo, F.V. Terenchenko, M.A. Ya-
                sinovskiy, G.I. Alkhutova, M.Ye. Vol'skiy, A.L.
                Myasnikov, K.P. Zak, I.A. Eskin, Ye.M. Tareyev, I.F.
                Pavlov, M.K. Petrova, O.I. Moiseyeva and others. In
Card 1/2   cases with usual or average acuteness of Botkin's

SOV/177-58-11-4/30

Certain Features of the Clinical Course of Acute Hepatites

disease, in some patients a trend to eosiphilia was
obvious, whereas in serious forms of this disease a
reverse phenomenon- a drop of eosinophiles up to
aneosinophilia - was observed. Data on three patients
are given which point to a considerable leukocytosis
in the period of the development of the leukemoid
reaction which was accompanied by pronounced eosino-
philia, lympho- and monopenia and increased E.S.R.
Relapses of acute hepatites of toxico-allergic cha-
racter are often caused by aggravation of chronic
tonsillitis. The author criticizes the fact that
physicians seldom take into account the effect of a
local focus on the pathogenese of acute hepatites
and its relapses so that the treatment is not always
rational. He thinks a well timed healing of local
suppurative foci in the complex treatment a good pro-
phylactic measure against recidivation. There is
1 table.

Card 2/2

BARSKIY, D.I., kand.med.nauk, KREYNIN, L.S., kand.med.nauk, BLYUMBERG, N.A. kand.med.nauk., GOKHFEL'D, E.T. (Moskva)

Antibiotic treatment of cholecystitis in young subjects.
Klin.med. 36 no.11:148-151 N '58   (MIRA 11:12)
            (CHOLECYSTITIS, ther.
                    antibiotics in young subjects (Rus))
            (ANTIBIOTICS, ther. use
                    cholecystitis in young sujbect (Rus))

BARSKIY, B.I.; BLYUMBERG, N.A. (Moskva)

Characteristics of eosinophilopoiesis in acute hepatitis [with
summary in English, p.62]. Probl.gemat. i perel.krovi 4 no.2:
34-37 F '59.   (MIRA 12:2)
          (HEPATITIS, blood in,
               eosinophil count (Rus))
          (EOSINOPHIL COUNT, in var. dis.
               hepatitis (Rus))

CA

FARSKIY, B. S.

3

An investigation of the application of Soderberg's electrodes to steel electric furnaces. H. S. Ramski and S. N. Ekvanovskii. (Domez 1930, No. 8-9, 111). A review of the literature and a theoretical discussion of the problem of electrodes for electric furnaces. A description is given of expts. designed to show the feasibility of using Soderberg's pressed self-baking electrodes in steel elec. furnaces. In trying pressed electrodes it is not necessary that the materials be ash free. Materials contg. 75-80% C proved satisfactory. Electrodes, which when dry, contained C 80%, volatile matter 0-8% and ash 10-20%, gave good results. The main difficulty was encountered in fitting the Soderberg electrodes into the electrode armatures on the furnace, because these electrodes are much smaller in diam. than the usual ones. A new method is suggested for pressing electrodes by striking the mass from the sides without the use of casing.

S. F. Marovsky

BARSKIY, B. S.

4

BARSKIY, B.S.

Durability of chill molds made of blast-furnace iron.
K. F. Starodubov, B. S. Barskii and A. Ya. Glikman.
Stal 3, No. 9/10, 63-5(1943). —Chem., phys. and corrosion
data.   M. Hirsch

A S M   S E A   METALLURGICAL LITERATURE CLASSIFICATION

BARSKIY, DOCENT B. S.   PA 43/43T80

USSR/Metals   Mar 1948
    Furnaces, Electric
    Steel

"A Contemporary Arc Electric Steel Smelting Furnace,"
Docent B. S. Barskiy, A. F. Myrtsymov, Candidates Tech
Sci, Ministry Ferrous Metal, 9 pp

"Stal'" No 3

To be able to build efficient electric furnaces in
Soviet Union, necessary to take as example equipment
of large aggregates, capacity from 50 to 70 tons, and
equipped with powerful transformers. Shown that it is
practical to use graphite electrodes, electric con-
trol apparatus and to operate equipment at full capac-
ity.
                                        43T80

BARSKIY, B.S.

Principal stages in the development of Russian electrometallurgy.
Trudy po ist.tekh. no.5:103-115 '54.   (MIRA 8:1)
    (Electrometallurgy)

BARSKIY, B.S.

137-58-5-9166

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 59 (USSR)

AUTHOR: Barskiy, B.S.

TITLE: Experience in the Employment of Large Steelsmelting Arc Furn-
aces (Obobshcheniya opyta ekspluatatsii krupnykh dugovykh elek-
trostaleplavil'nykh pechey)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii, 1956, Vol 9,
pp 426-433

ABSTRACT: In his report, presented at the Symposium of steel foundry
workers held in Zaporozh'ye from March 29 to April 3, 1956,
the author shows data on the respective basic parameters of
a series of arc furnaces developed by the Special Designs De-
partment of the "Elektropech'" trust; the capacities of these
furnaces ranged from 10 t to 180 t. The parameters proposed
were formalized in GOST 7206-54 (basic dimensions of furnaces)
and 7207-54 (transformer specifications). Operational exper-
ience with large arc furnaces employed in metallurgical plants
throughout the USSR are shown. Recommendations are made
concerning the selection of individual structural components
Card 1/2   and lining materials for the furnaces are given, together with a

137-58-5-9166

Experience in the Employment of Large Steelsmelting Arc Furnaces

description of methods to be used in converting the furnaces to mechanized
and automatic operation. Among others the following problems are examined
the shape and dimensions of the housing, the number and size of charge open-
ings, design of economizers and crown-supporting rings, employment of
interlocking brickwork for lining of walls, refractories used in the crown of
the furnace, means of mechanizing charging operations, rotation of the furn-
ace housing. electromagnetic means of stirring molten metal, design of elec-
trode holders, automatic, electromechanical, or electronic regulators, elec-
tromechanical or hydraulic operation of major mechanisms of the furnace;
also discussed was a number of general problems dealing with the operation
of large electric furnaces. in particular methods of introducing O_2, removal
and purification of flue gases and dust collection, removal of slag, design of
protective devices employed in the event of breakdown, and means of reduc-
ing the time required for repair operations.

B.B.

1. Electric furnaces--Standards

Card 2/2

BARSKIY, B.S., dots.

Direct reduction of iron ores abroad. Biul. TSNIICHM no.3:16—.. '58.
(Iron--Metallurgy)   (MIRA 11:5)

BARSKIY, B.S., referent.

New heavy-duty electric steel-smelting furnaces abroad. Biul.
TSNIICHM no.4:56-57 '58.   (MIRA 11:5)
                          (Electric furnaces)

BARSKIY, B.S., dots.

Using sponge iron in steel smelting abroad. Biul. TSNIICHM no.5:
22-24 '58.   (MIRA 11:5)

(Steel—Metallurgy)

BARSKIY, B.S., dots.

New electric vacuum furnaces abroad. Biul. TSNIICHM no.6:12-17 '58.
(Electric furnaces)   (MIRA 11:5)

BARSKIY, B.S., referent.

New equipment for electric arc furnaces. Biul. TSNIICHM no.6:54-56
'58.
(MIRA 11:5)

(Electric furnaces)

BARSKIY, B.S., referent

Use of oxygen in the U.S. iron and steel industry. Biul. TSNIICHM
no. 9:51 '59.   (MIRA 11:7)
            (United States--Oxygen--Industrial applications)

BARSKIY, B.S., referent

Pig process in electric furnaces. Biul. TSNIICHM no. 10:57 '58.

(MIRA 11:7)

(Iron--Metallurgy)

ADRIANOVA, V.P.; ANDREYEV, T.V.; ARANOVICH, M.S.; BARSKIY, B.S.; GROMOV, N.P.;
GUREVICH, B.Ye.; DVORIN, S.S.; YERMOLAYEV, N.F.; ZVOLINSKIY, I.S.;
KABLUKOVSKIY, A.F.; KAPELOVICH, A.P.; KASHCHENKO, D.S.; KLIMOVITSKIY,
M.D.; KOLOSOV, M.I.; KORCLEV, A.A.; KOCHINEV, Ye.V.; LESKOV, A.V.;
LIVSHITS, M.A.; MATYUSHINA, N.V.; MOROZOV, A.N.; POLUKAROV, D.I.;
RAYDEL', P.G.; ROKOTYAN, Ye.S.; SMOLYARENKO, D.A.; SOKOLOV, A.N.;
USHKIN, I.N.; SHAPIRO, B.S.; EPSHTEYN, Z.D.; AVRUTSKAYA, R.F., red.
izd-va; KARASEV, A.I.. tekhn.red.

[Brief handbook on metallurgy, 1960] Kratkii spravochnik metallur-
ga, 1960. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i
tsvetnoi metallurgii, 1960. 369 p.   (MIRA 13:7)
                    (Metallurgy)

BARSKIY, B.S., referent

Large vacuum induction furnace [from "Iron Age," no.16, 1959]
Biul. TSIICHM no.10:55 '60.   (MIRA 15:4)
                    (United States--Electric furnaces)

BARSKIY, B.S., referent

Use of natural gas in steel smelting arc furnaces [from "Iron Age,"
no.22, 1959]. Biul. TSIICHM no.10:55-56 '60. (MIRA 15:4)

(United States--Electric furnaces)

ZUYEV, Tikhon Illarionovich; BARSKIY, B.S., nauchnyy red.; ISLANKINA,
T.F., red.; SAVCHENKO, Ye.V., tekhn.red.

[Electrometallurgy] Elektrometallurgiia. Moskva, Izd-vo
"Znanie," 1961. 29 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu
politicheskikh i nauchnykh znanii. Ser.4, Tekhnika, no.1).

(MIRA 14:1)

(Electrometallurgy)

PHASE I BOOK EXPLOITATION   SOV/5407

Afanas'yev, S.G., Candidate of Technical Sciences; B.S. Barskiy, Docent; Yu.Ye. Yefroymovich, Candidate of Technical Sciences; V.Yu. Kaganov, Candidate of Technical Sciences; B.N. Katonin, Engineer; V.Ye. Leykin, Engineer; I.N. Lur'ye, Engineer; O.A. Mikhaylov, Candidate of Technical Sciences; A.Ye. Netesin, Engineer; M.Ye. Orman, Engineer; V.S. Rutes, Candidate of Technical Sciences; and Ye.A. Shneyerov, Candidate of Technical Sciences.

Tekhnicheskiy progress v chernoy metallurgii SSSR; staleplavil'noye proizvodstvo (Technological Progress in Soviet Ferrous Metallurgy; Steelmaking Industry) Moscow, Metallurgizdat, 1961. 495 p. Errata slip inserted. 3,200 copies printed.

Sponsoring Agencies: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR. Tsentral'nyy institut informatsii chernoy metallurgii.

Ed. and Scientific Ed.: G.N. Oyks, Professor, Doctor of Technical Sciences; Director of the Central institute for Information on Ferrous Metallurgy: N.B. Arutyunov; Chief Ed.: Ya.A. Gel'din, Ed. of the Central Institute for Information on Ferrous Metallurgy: L.I. Kheras; Ed. of Publishing House: V.I. Ptitsyna; Tech. Ed.: F.G. Islent'yeva.

Card 1/7

Technological Progress (Cont.)   SOV/5407

PURPOSE: This book is intended for technical and scientific personnel in the
  metallurgical and machine industries, and may also be used as a textbook by
  students in schools of higher education and tekhnikums.

COVERAGE: A review is made of the basic stages in the development of open-hearth,
  electric-hearth, electric-furnace, and converter steelmaking processes in the
  USSR. The present status of ferrous metallurgy and prospects for the future
  are examined. Present trends in the design, automation, and mechanization of
  steelmaking equipment are given. The state of the organization and mechanization
  of repairs in steelmaking plants, and methods of equipment maintenance are de-
  scribed. Problems in the process of steelmaking (the use of oxygen and vacuum,
  processing of phosphorus irons, improvement of the manufacture of individual types
  of steel, and steel casting) are discussed at length. No personalities are men-
  tioned. There are 329 references: 317 Soviet, 9 English, 2 German, and 1 French.

TABLE OF CONTENTS:

STEEL MANUFACTURE IN OPEN-HEARTH FURNACES

Card 2/7

BARSKIY, B.S., referent

Vacuum induction furnace of 2.3-ton capacity [from "Metal Progress," no.4, 1960]. Biul. TSIICHM no.1:52-53 '61.(MIRA 14:0 (United States—Electric furnaces)

BARSKIY, B.S., referent

Furnaces for the electronic melting of steel [from foreign
journals]. Biul. TSIICHM no.3:58-59 '61.   (MIRA 14:12)
                    (Metallurgical furnaces)
                       (Electron beam)

BARSKIY, B.S.

Lomonosov is the founder of Russian metallurgy; the 250th anniversary of his birth. Stal' 21 no.10:866-868 O '61.

(MIRA 14:10)

(Lomonosov, Mikhail Vasil'evich, 1711-1765)

SAVEL'YEV, Georgiy Pavlovich; BARSKIY, B.S., red.; GONCHAROVA,
L.A., red.izd-va; GINZBURG, R.Ya., tekhn.red.

[Production of ball iron] Proizvodstvo kritsy. Moskva,
Metallurgizdat, 1963. 97 p.   (MIRA 17:2)

BARSKIY, B.S., dotsent

Review of G.S. Sisoian's book "The electric arc in electric
furnaces." Stal' 24 no.1:44-45 Ja '64.   (MIRA 17:2)

BARSKIY, B.S., dots.; SUCHKOV, A.B., doktor tekhn. nauk, red.;
ASHKENAZI, E.L., red.

[International electrotechnical dictionary] Mezhdunarod-
nyi elektrotekhnicheskii slovar'. Moskva, Sovetskaia
Entsiklopediia. Group 50. 1964. 209 p. (MIRA 17:12)

1. International Electrotechnical Commission.

AUTHOR: Barskiy, D.Ya., Lemishenko, G.D., Engineers   SOV/28-58-5-23/37

TITLE: The Shaping of Standard Designs   (Oformleniye tipovykh proyektov)

PERIODICAL: Standartizatsiya, 1958, Nr 5, pp 68 - 69 (USSR)

ABSTRACT:
There are no unified standards or regulations which apply to planning organizations drawing up designs and blueprints for the mechanical engineering industry. The author discusses the confusion and morass of arbitrary decisions which this causes.

ASSOCIATION: Khar'kovskiy institut ogneuporov (Khar'kov Institute for Refractory Materials)

1. Drafting--Standards

Card 1/1

BARSKIY, E.Sh.

Effect of semipermanent mold design on the strength of ingob molds.
Stal' 15 no.6:553-558 Je '55.
(MLRA 8:8)

1. Yenakiyevskiy metallurgicheskiy zavod.
   (Molding (Founding)) (Steel Ingots)

BARSKIY, E.Sh.

Increasing the durability of ingot molds. Metallurg 7 no.12:16-17
D '62.

(MIRA 15:12)

1. Rukovoditel' gruppy tsentral'noy zavodskoy laboratorii
Yenakiyevskogo zavoda.

(Ingot molds)

BARSKIY, G. A.

Heat transfer of gas to the walls of a vessel by free convection. G. A. Barskii and Ya. B. Zel'dovich. *Compt. rend. acad. sci. U. R. S. S.* 21, 114-15(1938)(in English).—A steel vessel contained air or H which was cooled by adiabatic expansion through a quick-acting valve (0.01-0.02 sec.). The gas was then allowed to reach room temp. by heat transfer with the walls of the cylinder, the course of the process being followed by the pressure change. The results were the same for the 2 gases and are presented in an interpolation formula. O. M. M.

BARSKIY, G.A.

C A

2

Gued Inst. Chen.
Phys. AS USSR

Slow propagation of flame in tubes. G. A. Barskii and Ya. B. Zel'dovich (Acad. Sci. U.S.S.R., Moscow). *Zhur. Fiz. Khim.* **24**, 589–95(1950).—When gas in a horizontal tube closed at one end is ignited at the open end, the flame front is concave toward the ignition point. This is so because of convection: hot gases push cold gases back at the upper wall, and the cold gases flow down to the bottom wall near which they burn. If u is the normal velocity of flame (disregarding convection), w the velocity of gas parallel to the axis at a given point, w_0 the greatest w (i.e. along the axis), S the area of the flame front, and F the cross-section of the tube, then the gas vol. burning at any point is $u dS = (u + w_0 - w) dF$; at the bottom wall w is neg. and the rate of combustion is great. The shape of the flame depends on the dimensionless ratio $w_0/\sqrt{gd}$; g is acceleration due to gravity and d is the diam. of the tube. The equations obtained are confirmed for burning mixts. of CO or CH₄ with O₂ (literature data) when u varied from 8 to 50 cm./sec. Excessive increase in u may cause retardation of combustion. A method for detg. the flame front from photographs of the flame is described. Photographs of vibrating flames are given.

J. J. Bikerman

BARSKIY, G.A.

USSR/Chemistry - Kinetics of Combustion   May 51

"Kinetics of the Combustion of Carbon Monoxide,"
G. A. Barskiy, Ya. B. Zel'dovich, Inst Chem Phys,
Moscow, Acad Sci USSR

"Zhur Fiz Khim" Vol XXV, No 5, pp 523-537,

Dependence of the speed of flame propagation in
$CO-O_2-N_2$ on moisture content, presence of excess
of one of the reaction components, temp, and
pressure were examd by the photographic method.
Rate of reaction in mixts with excess CO is pro-
portional to the H_2O or H_2 concn, with excess O_2
to the square root of that concn. Effect of the
compn on the speed of flame propagation must be
LC

PA 190T6

USSR/Chemistry - Kinetics of Combustion   May 51
           (Contd)

studied on mixts having the same temp of combus-
tion. With excess of O_2, the reaction rate does
not depend on the effective O_2 concn. It does
ordinarily depend on the effective O_2 concn, with
CO in excess. At low temps the reaction rate does
not depend on the CO concn. Activation energy of
the reaction was measured by procedure in which
combustion products of the reaction are added to
the mixt. This energy strongly depends on the
compn of the mixt, indicating complexity of re-
action mechanism. Rate of reaction is proportional
to P2.5. Gives approximate expression for the
rate of reaction in the flame.
LC

190T6

BARSKIY, G. A. and ZEL'DOVICH, Ya. B.

"On Slow Propogation of Flames in Pipes," Zhur. Fiz. Khim., 24, No.5,
p. 5?9, 1954.

Inst. Chemical Physics

SADOVSKIY, S. (Novomoskovsk, Tul'skaya oblast'); KOROLEV, A. (Novomoskovsk,
    Tul'skaya oblast'); BARSKIY, I. (Novomoskovsk, Tul'skaya oblast')

    Prophylaxis and more prophylaxis! Okhr. truda i sots. strakh. 5
    no.9:25-28 S '62.
                                                        (MIRA 16:5)

    1. Direktor Novomoskovskogo khimicheskogo kombinata (for Sadovskiy).
    2. Predsedatel' zavodskogo komiteta Novomoskovskogo khimicheskogo
    kombinata (for Korolev). 3. Glavnyy vrach mediko-sanitarnoy chasti
    Novomoskovskogo khimicheskogo kombinata (for Barskiy).
        (NOVOMOSKOVSK (TULA PROVINCE)--CHEMICAL INDUSTRIES)--HYGIENIC ASPECTS)

87889
S/114/60/000/005/003/006
E194/E255

26.2120

AUTHOR: Barskiy, I. A., Engineer

TITLE: The Range of Nozzle Control of a Gas Turbine

PERIODICAL: Energomashinostroyeniye, 1960, No. 5, pp. 24-25

TEXT: The use of turbine nozzle control permits of
considerable improvement in the efficiency of the tandem gas
turbine at part loads, as may be seen from the example of the
General Electric turbine in the American ship 'John Sergeant'.
The most economic method of nozzle control is to alter the outlet
angle of flow from the nozzle by turning all the nozzle blades
of the controlled stage; this is the method used in the General
Electric turbine. The object of this article is to calculate the
possible range of change of this angle and consequently of the
turbine output with minimum loss of efficiency. Alteration of
the nozzle discharge angle reduces the degree of reaction of the X
stage. Reduction in the angle should be limited by the minimum
permissible loss of reaction. Obviously the reaction should not
be less than zero. In deriving equations relating the outlet
angle of the nozzles to the degree of reaction, use is made of the
condition of equality of flow through the nozzle blading and the
Card 1/3

87889

S/114/60/000/005/003/006
E194/E255

The Range of Nozzle Control of a Gas Turbine

stage runner. On this basis expressions (7) and (7') are derived for the nozzle angle at zero reaction. However, if the angle is less than 12-14° the velocity coefficient in the nozzle begins to diminish, and so lower values than this should not be used. Fig.1 plots the relationship between the discharge angle from the nozzle and the velocity coefficients of nozzles and runner. It will be seen that as the velocity coefficient falls the value of the angle diminishes, but not very much. To a first approximation the velocity coefficients may be considered constant. The relationship between the discharge angle from the nozzles and the outlet angle from the runner is plotted in Fig. 2. In constructing the graph it was assumed that the stage had a cylindrical flow path at the meridional section. Having determined the minimum nozzle discharge angle, the referred flow of gas through the turbine at the end of nozzle control may be expressed as a proportion of the rated discharge. This ratio governs the range of nozzle control of the turbine; see expression (8). Calculations confirmed by experiments show that nozzle control may be used to reduce the

Card 2/3

87889
S/114/60/000/005/003/006
E194/E255

The Range of Nozzle Control of a Gas Turbine

flow of gas through the turbine by 35-40% without more than 2-3% loss of efficiency.   There are 2 figures and 5 references; 4 Soviet and 1 non-Soviet.

Card 3/3

BAR KIY, I.A., inzh.; GAYGEORV, V.I., kand.tekhn.nauk

Control programs for two-shaft gas turbine engines with
regulated jet systems. Energomashinostroenie 7 no.9:21-23
S '61.   (MIRA 14:9)
                        (Gas turbines)

S/114/62/000/007/001/003
E194/E455

AUTHOR: Barskiy, I.A., Engineer

TITLE: Calculation of the velocity characteristics of a
              two-shaft gas turbine set

PERIODICAL: Energomashinostroyeniye, no.7, 1962, 19-23

TEXT: Methods exist for calculating velocity characteristics of
sets with constant-speed governing but the calculations are more
complicated with fuel-consumption governing; a laborious method
of successive approximations is used.   Formulae are derived in
this article which may be used to determine the gas temperature
at inlet to the turbine calculating the characteristics of a set
having a fuel-consumption controller.   The formulae are for a
two-shaft gas turbine set with heat exchanger: those for a set
without heat exchanger can be derived by taking the degree of
regeneration as zero.   To calculate the velocity characteristics
of the set, it is necessary to know the characteristics of the
compressor and power turbines, which are given in the form of
curves.   The independent variables adopted are stated and the
Card 1/2

Calculation of the velocity ...

S/114/62/000/007/001/003
E194/E455

formula for the gas temperature at inlet is derived both in an accurate and in a sufficiently approximate form.   Having thus determined the gas temperature at inlet to the turbine, the author constructs the velocity characteristics of the turbine. Characteristics are plotted for a gas turbine with heat exchanger and constant fuel consumption are plotted and compared with those for a set with constant-speed governing.   The former is shown to have the better traction properties and higher efficiency. Finally, the accuracy of the calculation by the method proposed depends upon knowing the characteristics of compressor and turbine accurately, and it is best to determine these experimentally.   There are 4 figures.

Card 2/2

BARSKIY, I.A.

Changing the rate of regeneration of a gas-turbine engine under
unsteady operating conditions. Avt.prom. 28 no.12:10-11 D '62.
(MIRA 16:1)

(Gas and oil engines)

L 18381-63
ACCESSION NR: AP3006151   EPA/EWP(r)/EWT(d)/EWT(m)/BDS   AEDC/AFFTC/ASD/APGC   Paa-4
                          HW/EM   S/0122/63/000/008/0037/0039

AUTHOR: Barskiy, I. A. (Candidate of technical sciences)   63

TITLE: Influence of radial clearance in rotor blades on the degree of reaction
of a turbine

SOURCE: Vestnik mashinostroyeniya, no. 8, 1963, 37-39

TOPIC TAGS: gas turbine, blade radial clearance, blade clearance, stage reac-
tion, stage design, gas-turbine design, nozzle, degree of reaction, degree
of reaction variation

ABSTRACT: A study has been made to demonstrate the substantial effect of the
radial clearance between blades and turbine body on the degree of reaction of
a gas turbine. An approximate method of determining this effect has been de-
veloped in which the degree of reaction is considered as a function of the co-
efficient of the flow through radial clearance, flow angles, the ratio of
clearance-flow area to blade-flow area, and the specific weights of the gases.
Variations in the degree of reaction diminish as the exit angle from the nozzle
apparatus increases (see Fig. 1 of Enclosure). On the average, a radial clearance

Card 1/4

L 18381-63
ACCESSION NR: AP3006151

of 1% leads to a decrease of 0.015—0.02 in the degree of reaction. In Fig. 2, the degrees of reaction of stages without clearance are compared with stages with a 2% clearance. Orig. art. has: 6 formulas and 4 figures.

ASSOCIATION: none

SUBMITTED: 00   DATE ACQ: 18Sep63   ENCL: 02

SUB CODE: PR   NO REF SOV: 000   OTHER: 000

Card 2/4

BARSKIY, I.A., inzh.; GAYGEROV, V.I., kand. tekhn. nauk

The most advantageous conditions of control for double-shaft transportation gas turbine engines with regulated nozzle system. Energomashinostroenie 7 no.3:20-24 Mr '61.   (MIRA 16:8)

(Gas turbines)

BARSKIY, I.A., inzh.

Improvement of the accelerating ability of a two-shaft gas turbine
transport engine using nozzle control of the power turbine. Energo-
mashinostroenie 9 no.6:35-36 Je '63.   (MIRA 16:9)

L 49449-65   EWT(m)/EWP(w)/EWP(v)/T-2/EWP(k)   Pf-4   RM
ACCESSION NR: AP5011077   UR/0113/65/000/004/0024/0026

31
B

AUTHOR: Barakiy, I. A.

TITLE: The change of temperature in the working blades of a gas turbine in
unsteady operations

SOURCE: Avtomobil'naya promyshlennost', no. 4, 1965, 24-26

TOPIC TAGS: gas turbine blade, gas turbine cooling, unsteady gas flow, tempera-
ture measurement, heat balance, heat transfer

ABSTRACT: In operating a gas turbine in an unsteady state (starting up, warming,
and accelerating an automobile gas turbine), the blade temperatures t_{Λ} differ
from the gas flow temperatures t_w. The heat balance equation is used to study t_{Λ}
vs time (τ) with a given gas temperature increase $\Delta t_w = t_w - t_{w0}$ (0 is the
initial condition). For the infinitely small time interval $d\tau$, the blade heat
balance is

$$\frac{\varepsilon_1 F_1}{3600}(t_w - t_{\Lambda})d\tau - \frac{\alpha_{w1} F_{\Lambda1}}{3600}(t_{\Lambda} - t_{w1})d\tau - \frac{Q}{3600}d\tau = $$
$$= G_{\Lambda}c_{\Lambda}dt_{\Lambda},$$

Card 1/3

L 49443-65

ACCESSION NR: AP5011077

where st is the steady state condition, α_2 and α_{ox} are the heat transfer coefficients from the gas to the blade and from the blade to the cooling agent; F_{Λ} and F_{ox} are the surface of the blade vein and the surface washed by the cooling agent; t_{ox} is the temperature of the coolant; Q is the heat flowing from the blade to the disk; and G_{Λ} and c_{Λ} are the weight and thermal capacity of the blade vein. Assuming t_w, t_{ox}, Q, α_2, and α_{ox} are independent of t_{Λ}, the equation is transformed to a linear differential equation. Solving this,

$$ t_{\Lambda} = t_{\Lambda \cdot st} - \frac{t_{\Lambda \cdot st} - t_{\Lambda o}}{e^{A \tau}}; $$

$$ A = \frac{\alpha_2 F_2 + \alpha_{ox} F_{ox}}{36000 \, c_{\Lambda}}; $$

$$ t_{\Lambda \cdot st} = \frac{\alpha_2 F_2 t_2 + \alpha_{ox} F_{ox} t_{ox} - Q}{\alpha_2 F_2 + \alpha_{ox} F_{ox}}; $$

is obtained.

Card 2/5

L 49443-65

ACCESSION NR: AP5011077

For blades without internal cooling, the stress is greatest at that distance from the root where heat flow to the disk is small, and $Q = 0$, $\alpha_{ox} = 0$, t_{Λ} st $= t_{v}$, $t_{\Lambda 0} = t_{vo}$, and the equation becomes

$$t_{\Lambda} = t_{v} - \frac{t_{v} - t_{vo}}{e^{A t}} = t_{v} - \frac{\Delta t_{v}^{0}}{e^{A t}}$$

$$A = \frac{a_{g} F_{g}}{3600 \, G_{\Lambda} c_{\Lambda}}$$

Expressing the blade surface by the product of the perimeter and the height, and the weight by the volume and the specific gravity γ_{Λ}, A becomes

$$A = \frac{a_{g}}{3600 c_{\Lambda} \gamma_{\Lambda}} \cdot \frac{U}{F_{cs}}$$

where F_{cs} is the blade cross section area and U is the blade profile perimeter. U/F_{cs} can be approximated by a function of the profile cord b. As b increases, the blade heating time is increased. The turbocompressor accelerating time

Card 3/5

L 49943-65
ACCESSION NR: AP5011077

for similar installations is directly proportional to their linear dimensions
(A τ decreases with an increase in rotor dimensions). Figure 1 on the Enclosure
shows curves calculated from the above equations. For an automobile gas turbine
A = 0.2. A similar method can be used for calculating nozzle vein temperatures
if the heat flow to the casing is taken into consideration. Orig. art. has:
1 figure and 7 equations.

ASSOCIATION: none

SUBMITTED: 00   ENCL: 01   SUB CODE: PR

NO REF SOV: 000   OTHER: 000

Card 4/5

L 52091-65   EPR/EWP(k)/EWT(m)/EPA(bb)-2/T-2/EWP(w)/EWP(f)/EWP(v)   Pf-4
ACCESSION NR: AP5015242   EM   UR/0286/65/000/009/0029/0029

AUTHORS: Barskiy, I. A.; Savchenko, M. V.

TITLE: A nozzle device for turbines. Class 14, No. 170532

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 29

TOPIC TAGS: nozzle, turbine, blade, turbine efficiency

ABSTRACT: This Author Certificate presents a nozzle device for turbines (such as gas turbines), containing rotary blades with a drive (see Fig. 1 on the Enclosure). These paddles are placed with their radial openings at the periphery and at the base. To diminish the losses at the base openings of the rotary blades and to increase the turbine efficiency, the drive of the rotary blades is provided with springs which exert a force on the blades from the periphery to the base, while the bases of the blades have the shape of dowels inserted into the opening of the frame. Orig. art. has: 1 diagram.

ASSOCIATION: Organizatsiya gosudarstvennogo komiteta po oboronnoy tekhnike SSSR (Enterprise of the State Committee on Defense Technology SSSR)

Card 1/1   Submitted: 11 Jun 63

L 63067-65   EPF(c)/EPF(n)-2/EWT(1)/EWG(m) Pr-4/Ps-4/Pu-4   WW

ACCESSION NR: AP5013272   UR/0114/65/000/005/0040/0041
                                        621.438:536.24.001.5

AUTHOR: Barsky, I. A. (Candidate of technical sciences)

TITLE: Variation of parameters of a heat exchanger under transient conditions

SOURCE: Energomashirostroyeniye, no. 5, 1965, 40-41

TOPIC TAGS: heat exchanger, transient condition

ABSTRACT: Lest the heat exchanger affect the operation of a gas turbine during transient conditions, it is necessary to know (for designing an automatic-control system) the laws of variation of the thermal ratio of the heat exchanger and its outlet air temperature during the transient period. These values are determined for a stationary heat exchanger (recuperator), for any gas-air flow pattern (counter, cross, or mixed), for any $a_a F_a / a_g F_g$ ratio; here, a_a and a_g are the air and gas heat-transfer coefficients, respectively; F_a and F_g are the air and gas heat-exchanger surfaces, respectively. It is found that: (1) The gas-air flow

Card 1/2

L 63067-65

ACCESSION NR: AP5013272

pattern has no effect on the thermal ratio of the heat exchanger; (2) In heat exchangers with $a_aF_a/a_gF_g = 1$, the thermal ratio during transient conditions increases somewhat faster than in exchangers having $a_aF_a/a_gF_g > 1$; however, this has only a slight effect on the transient thermal ratio. Orig. art. has: 1 figure and 14 formulas.

ASSOCIATION: none

SUBMITTED: 00   ENCL: 00   SUB CODE: PR

NO REF SOV: 004   OTHER: 002

Card 2/2

L 10886-66   EWT(d)/EPA/EWT(m)/EWP(w)/EWP(f)/EPF(n)-2/T-2/EWA(c)/ETC(m)   WW/EM

ACC NR: AP6001677   SOURCE CODE: UR/0281/65/000/006/0134/0136

AUTHOR: Barskiy, I. A. (Moscow)

ORG: none

TITLE: Effect of the gas temperature on the thermal conditions of turbine blades during the acceleration of a gas turbine engine

SOURCE: AN SSSR. Izvestiya. Energetika i transport, no. 6, 1965, 134-136

TOPIC TAGS: gas turbine engine, gas turbine, turbine blade

ABSTRACT: The acceleration time of a turbocompressor in a twin-shaft gas-turbine engine can be reduced by raising the gas inlet temperature. However, the increase in the inlet temperature may result in compressor surge or overheating of the turbine blades. These effects of the inlet temperature were investigated analytically. The obtained results indicate that during acceleration, the gas inlet temperature has a very small effect on the temperature of the mean cross section of the blade. On the other hand, a 10% rise in the inlet temperature reduces the acceleration time by 25—35%. It is therefore concluded that, in general, the possibility of compressor surge should be the only factor limiting the maximum inlet temperature.   [AS]

Card 1/2   UDC: 621.165.155

L 10886-66

ACC NR: AP6001677

SUB CODE: 21/   SUBM DATE: 28Jun65/   ORIG REF: 003/

ATD PRESS: 4/72

HW

Card 2/2

BARSKIY, I. B.

USSR/Medicine - Tumors, Malignant   Mar/Apr 48
    Medicine - Tumors, Skin

PA 3/49T81

"Water-Soluble Aderosinetriphosphatase of Normal and
Malignant Tissues," I. B. Barskiy, N. A. Brisker,
Biochem Lab, Cen Oncological Inst, Moscow, 7½ pp

"Biokhimiya" Vol XIII, No 2

Reports experiments on rats and mice. Both normal
and malignant tissues contain active, water-soluble
adenosinetriphosphatase, which detaches 2 phosphate
molecules from adenosinetriphosphoric acid, optimum
pH being 7.0-7.2. Activated by magnesium ions in
concentration 10⁻³ M. Activity of water extracts per
unit weight of raw tissue is as follows. Mice:

3/49T81

USSR/Medicine - Tumors, Malignant (Contd) Mar/Apr 48

kidney, spleen, muscles, lungs, liver, tumor (Crocker
sarcoma), skin, tumor (Ehrlich cancer). Rats: liver,
tumor, muscles, skin. Activity of adenosinetriphos-
phatase of skin is negligible in rats, but clearly
manifested in mice. Submitted 17 Sep 47.

3/49T81

KAREL'SKIKH, D.K., prof.; APASHEV, M.D., kand.tekhn.nauk; ~~BARSKIY, I.B.~~
kand.tekhn.nauk; ZAYCHIK, G.I., doktor tekhn.nauk, retsenzent;
ANOKHIN, V.I., kand.tekhn.nauk, retsenzent; ZARETSKIY, B.I.,
inzh., red.; POPOVA, S.M., tekhn.red.

[Theory, design, and engineering analysis of tractors] Teoriia,
konstruktsiia i raschet traktorov. Moskva, Gos.nauchno-tekhn.
izd-vo mashinostroit. lit-ry. [Pt.3. Theory and analysis of
tractor chassis] Teoriia i raschet shassi traktorov. Pod obshchei
red. D.K.Karel'skikh. 1950. 144 p.   (MIRA 11:12)
                          (Tractors)

BARSKIY, I.B.

LYZO, Georgiy Pavlovich, kandidat tekhnicheskikh nauk; LYZO, Aleksandr Pavlovich, kandidat tekhnicheskikh nauk; BARSKIY, Igor' Borisovich, kandidat tekhnicheskikh nauk; ZAYCHIK, G.I., doktor tekhnicheskikh nauk, professor, retsenzent; TREPENENKOV, I.I., kandidat tekhnicheskikh nauk, retsenzent; YAKOBI, M.A., kandidat tekhnicheskikh nauk, redaktor; SOKOLOVA, T.F., tekhnicheskiy redaktor

[Tractor designs] Konstruktsii traktorov. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 559 p.   (MIRA 10:1)
   (Tractors)

BARSKIY, I.B., kandidat tekhnicheskikh nauk;   IVANOV, V.V., kandidat
        tekhnicheskikh nauk.

    Tractors with four drive wheels. Avt.i trakt.prom. no.4:5-9 Ap '56.
                                                    (MLRA 9:8)
    1. Moskovskiy aviamotornyy institut.
                        (Great Britain--Tractors)

BARSKIY, I.B., kandidat tekhnicheskikh nauk; POLETAYEV, A.P., kandidat
tekhnicheskikh nauk.

Problem of field tests for tractors. Nauch.trudy MAMI no.6:3-7 '56.
(Tractors--Testing)   (MLRA 10:2)